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(54) **Resin-impregnated belt for application on papermaking machines and in similar industrial applications**

(57) A resin-impregnated endless belt for a long nip press or calender of the shoe type, or for other papermaking and paper-processing applications, has a base fabric in the form of an endless loop with an inner surface, an outer surface, a machine direction and a cross-machine direction. The base fabric has machine-direction (MD) structural elements and cross-machine-direction (CD) structural elements in an open structure wherein at least some of the MD structural elements and CD structural elements are spaced apart from one another. The MD structural elements cross the CD structural

elements at a plurality of crossing points, where they are joined to one another by mechanical, chemical or thermobonding means. A coating of a first polymeric resin is on the inner surface of the base fabric. The first polymeric resin impregnates and renders the base fabric impermeable to liquids, and forms a layer on the inner surface thereof. The coating is smooth and provides the belt with a uniform thickness. A method for manufacturing the belt, using a smooth and polished cylindrical mandrel with a spacer ring slidably disposed thereon, is also shown.

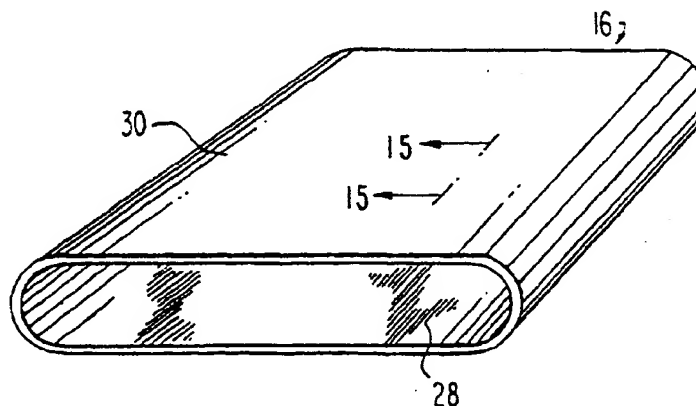


FIG. 2



European Patent
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EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|---|--|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) |
| A | EP 0 659 934 A (APPLETON MILLS) 28 June 1995 * the whole document * | 1,2,6, 16,17 | D21F3/02 |
| A | DE 92 01 143 U (VOITH) 26 March 1992 * the whole document * | 1-3,6 | |
| A | GB 2 287 484 A (SCAPAP GROUP) 20 September 1995 * the whole document * | 1,2,6 | |
| P,A | EP 0 859 082 A (VOITH SULZER PAPIERMASCHINEN) 19 August 1998 * the whole document * | 1,2,6 | |
| A | DE 41 25 279 A (VOITH) 3 December 1992 * the whole document * | 57 | |
| | | | TECHNICAL FIELDS SEARCHED (Int.Cl.6) |
| | | | D21F |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 10 June 1999 | Examiner De Rijck, F |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 66 0133

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The members are as contained in the European Patent Office EDP file on
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10-06-1999

| Patent document cited in search report | | Publication date | Patent family member(s) | | Publication date |
|---|---|---------------------|----------------------------|------------|---------------------|
| EP 659934 | A | 28-06-1995 | EP | 0658649 A | 21-06-1995 |
| | | | FI | 945850 A | 15-06-1995 |
| ----- | | | | | |
| DE 9201143 | U | 26-03-1992 | NONE | | |
| ----- | | | | | |
| GB 2287484 | A | 20-09-1995 | AU | 1462595 A | 03-10-1995 |
| | | | CA | 2185427 A | 21-09-1995 |
| | | | EP | 0752026 A | 08-01-1997 |
| | | | FI | 963087 A | 05-08-1996 |
| | | | WO | 9525200 A | 21-09-1995 |
| | | | JP | 9510266 T | 14-10-1997 |
| ----- | | | | | |
| EP 859082 | A | 19-08-1998 | DE | 19706097 A | 20-08-1998 |
| ----- | | | | | |
| DE 4125279 | A | 03-12-1992 | AT | 402172 B | 25-02-1997 |
| | | | AT | 110792 A | 15-07-1996 |
| | | | CA | 2070096 A | 30-11-1992 |
| | | | FI | 922389 A | 30-11-1992 |
| | | | JP | 5179594 A | 20-07-1993 |
| | | | SE | 507598 C | 22-06-1998 |
| | | | SE | 9201581 A | 30-11-1992 |
| | | | US | 5290164 A | 01-03-1994 |
| ----- | | | | | |

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82